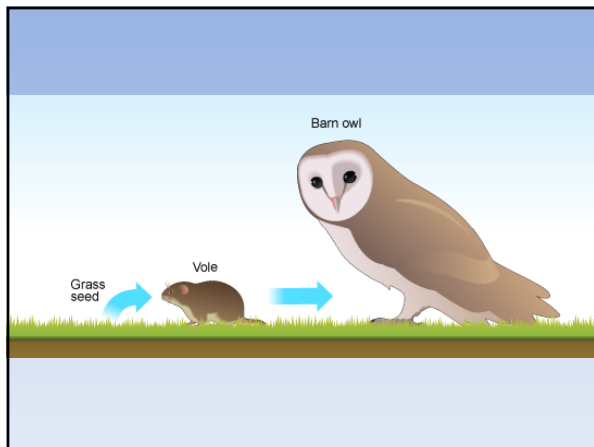
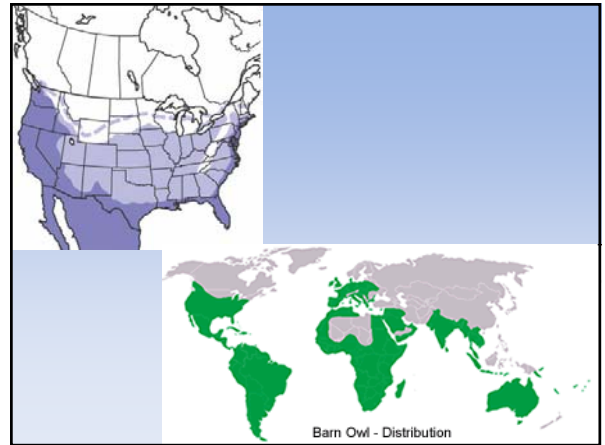


Managing Barn Owls for Rodent Control

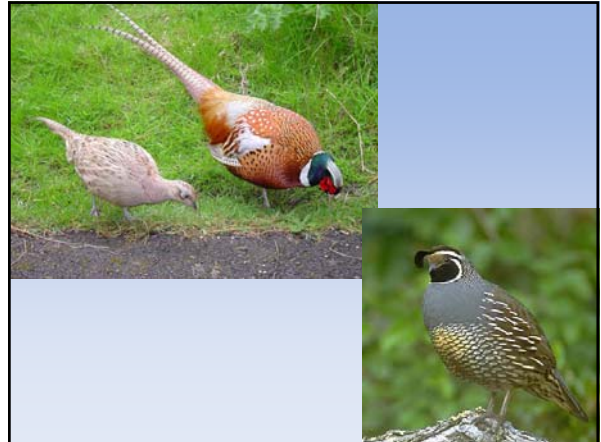
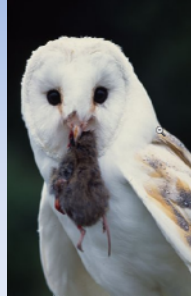
Presented by
Mike Omeg



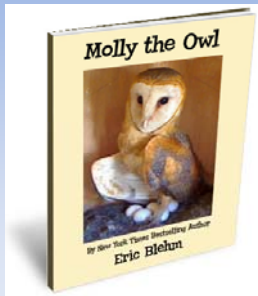
Why encourage barn owls?

Rodent damage is a "hidden" cost:

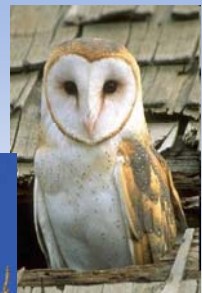
How much does the loss of trees and reduced vigor from rodents cost you each year in replacement trees and lost vigor/production?

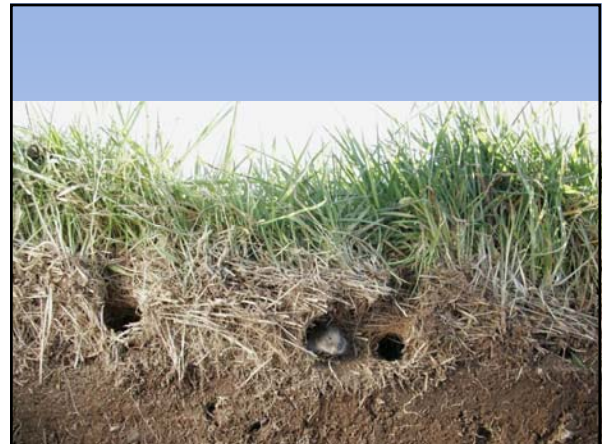
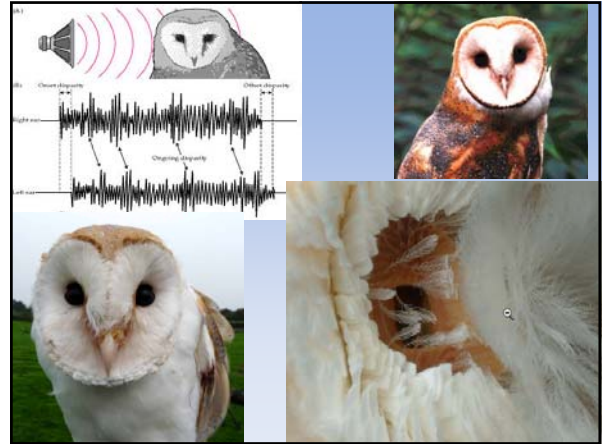


Everyone loves Barn Owls!
Make it a selling point.



Owls are Raptors









Barn Owls and Your Wallet: Annual Rodent Control

- Rodenticides cost approx \$1 to \$1.50 per pound
- Recommended rates are 5 lbs/ac = \$5 to \$7.50/ac
- Treat 5% of a 200 acre field = \$50 to \$75 each time you treat.
- Normally treat 2x per year = \$100 to \$150/yr
- These figures do not account for buying the equipment-spreader or labor.
- 2 owl boxes @ \$250/ea installed = \$500
- Barn owl boxes will pay for themselves in saved materials cost just three to five years once occupied. EVEN LESS time if you figure equipment and labor.

Barn Owls and Your Wallet: Annual Rodent Control

- Seavert budgets \$30.11/acre/yr (2007 budget)
- Omeg Orchards: approx \$43/acre/yr
- Cooper Orchards (labor): approx \$34/ac/yr
- These figures do not account for buying the equipment- gopher machine, spreader.
- For a 20 acre block @ \$43/ac= \$860/yr
- 20 acres requires 2 owl boxes @ \$250/ea installed = \$500
- Barn owl boxes will pay for themselves in just a year or two once occupied.

Barn Owls will Help!



Barn Owls and your Wallet: Young tree loss

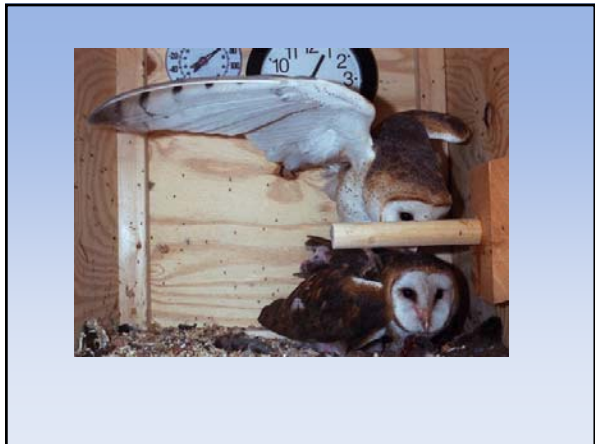
- At 340 trees per acre (8x16 spacing) the cost buying and planting a tree is \$17.09 per tree (Seavert).
- For a 20 acre block with gopher problems:
 - 20 acres at 8x16 spacing = 6,800 trees
 - 1/2 % trees loss to gophers = 34 trees
 - 34 dead trees x \$17.09/tree = \$581.06 each year
 - 3 years of 1/2 % tree losses = \$1,743 lost dollars
 - Replanting dead trees will add even more cost!
- 20 acres of orchard requires 2 owl boxes @ \$250/ea installed = \$500





Beginning of Nesting

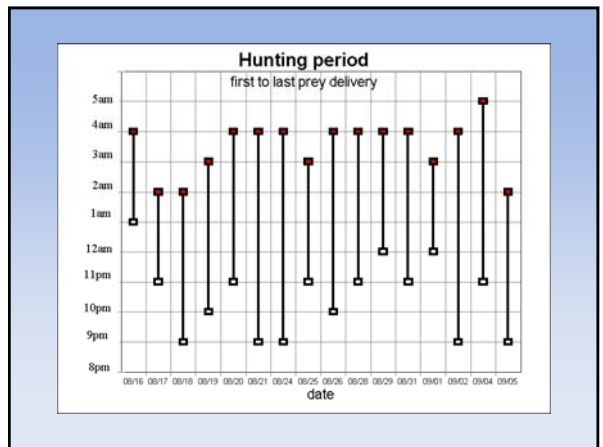
Month	Percentage (approximate)
May	45%
April	30%
Other	15%
March	10%





A guide to ageing young Barn Owls


<p>Day 14 WL = 35mm Weight = 167g</p>	<p>Day 21 WL = 92mm Weight = 239g</p>	<p>Day 28 WL = 127mm Weight = 390g</p>
<p>Day 35 WL = 171mm Weight = 385g</p>	<p>Day 42 WL = 204mm Weight = 574g</p>	<p>Day 49 WL = 222mm Weight = 591g</p>
<p>Day 56 WL = 260mm Weight = 987g</p>	<p>Day 63 WL = 276mm Weight = 1346g</p>	






Barn Owls Eating Gophers

- A family of barn owls will eat 10-12 gophers per night during the 4 month brooding period (Apr-Jul)
- Barn owl adults eat at least 1 gopher per night during the rest of the year
- A family of 2 parents and 5 young will eat over 3000 gophers in one year
- How much must you spend to control 3000 gophers?




If you need to wear a respirator to spray don't apply the product to your barn owl boxes.



Barn Owls Eating Voles/Mice

- A family of barn owls will eat about 120 voles per night during the 4 month brooding period (Apr-Jul)
- Barn owl adults eat up to 10 voles per night during the rest of the year

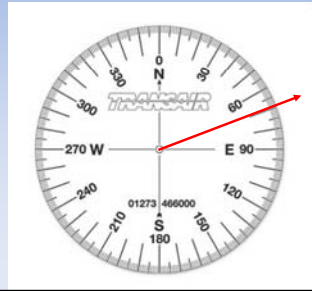



Owl Box Placement

- Use a steel pole 8 feet or more high
- Face entrance to true east
- Locate within 50 yards of a nursery tree
- Place at the edges of your orchard
- Avoid roads
- Don't forget maintenance
 - Yearly cleanings
 - Paint if needed
 - KEEP STARLINGS OUT!



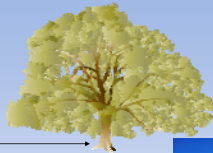
Face the box true East



Nursery trees are important

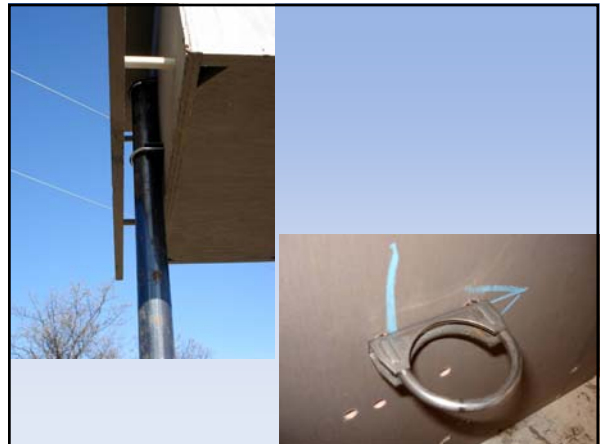
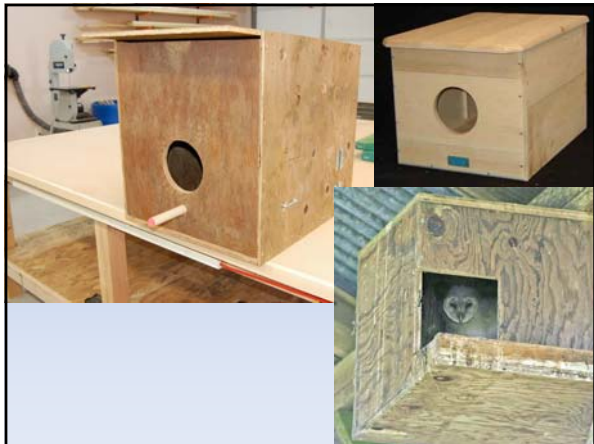


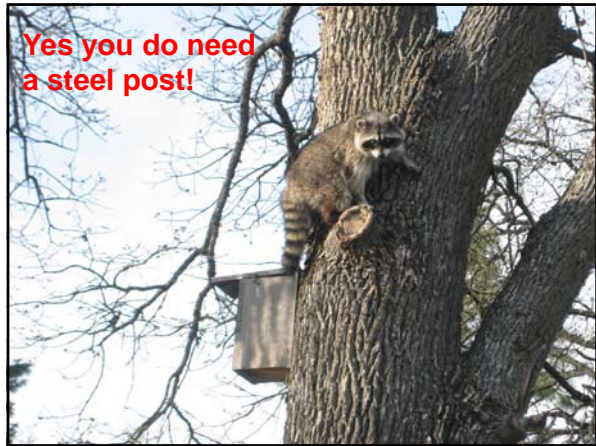
Within 50 yards to the front of the box



A good quality owl box

- Made of $\frac{3}{4}$ " plywood that is screwed and glued
- At least 2 ft sq- bigger is better
- Stained or painted
- Sun shade on top and back
- 4x3" elliptical entrance hole
- Internal predator baffle
- Top and bottom ventilation holes
- Doesn't have a perch if other owls species are in the area







Some rodenticides are dangerous, others are relatively safe

Lethal:	No adverse effects:
<ul style="list-style-type: none"> • Brodifacoum <i>D Con</i> • Diphacinone <i>Ramik Green/Brown</i> • Bromadiolone 	<ul style="list-style-type: none"> • Chlorophacinone – <i>Rozol Vole Bait</i> • Strychnine • Zinc phosphide • Fumarin
Sub lethal:	
<ul style="list-style-type: none"> • Difenacoum 	

Questions?
 Omegorchards.com
 Tucksdwellings.com

Rozol

- 10x less toxic to dogs than Ramik
- Virtually no risk of secondary poisoning to birds
- Cheaper
- Lasts longer

